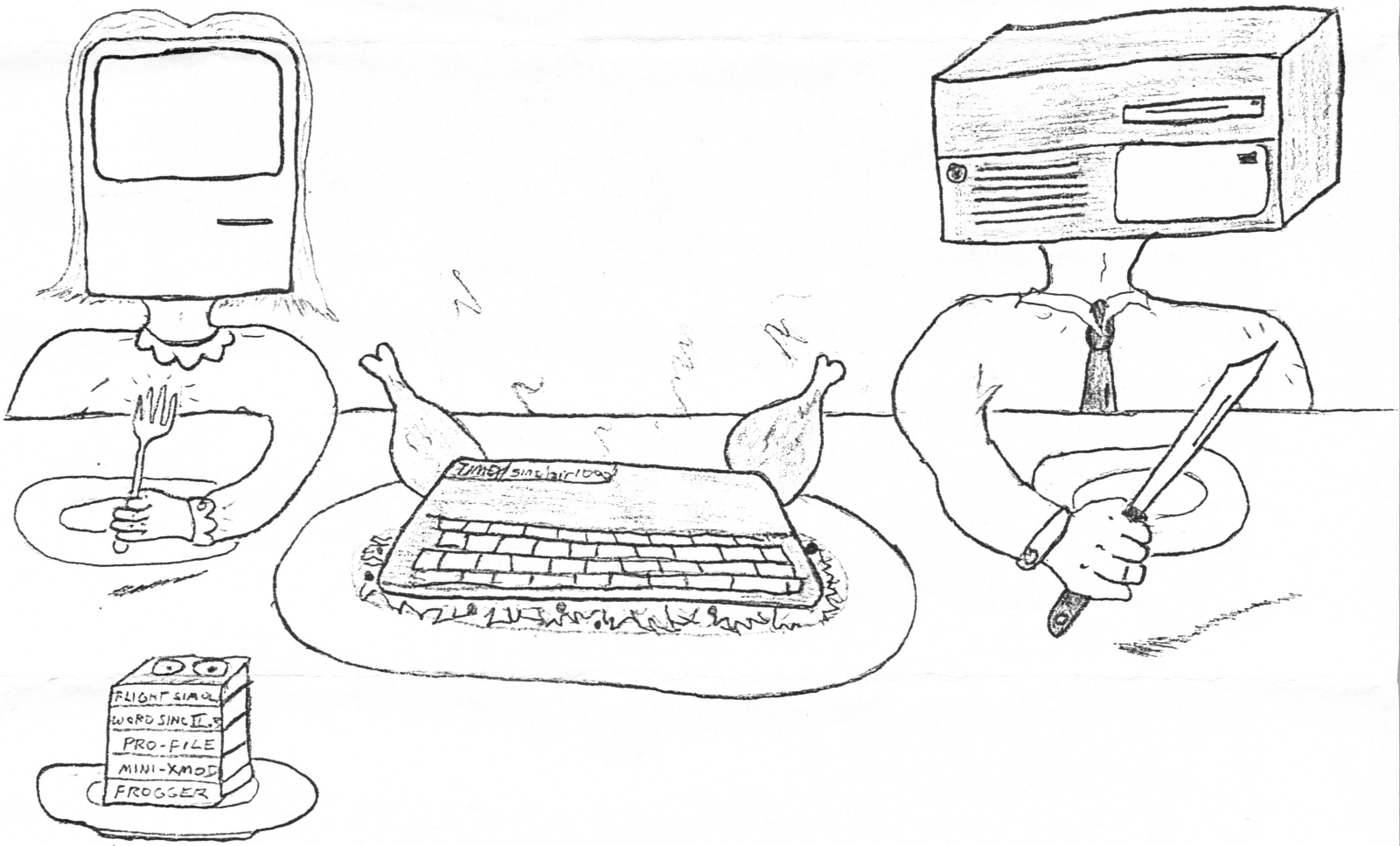
THE NEWSLETTER FOR SEATUG

SWYM

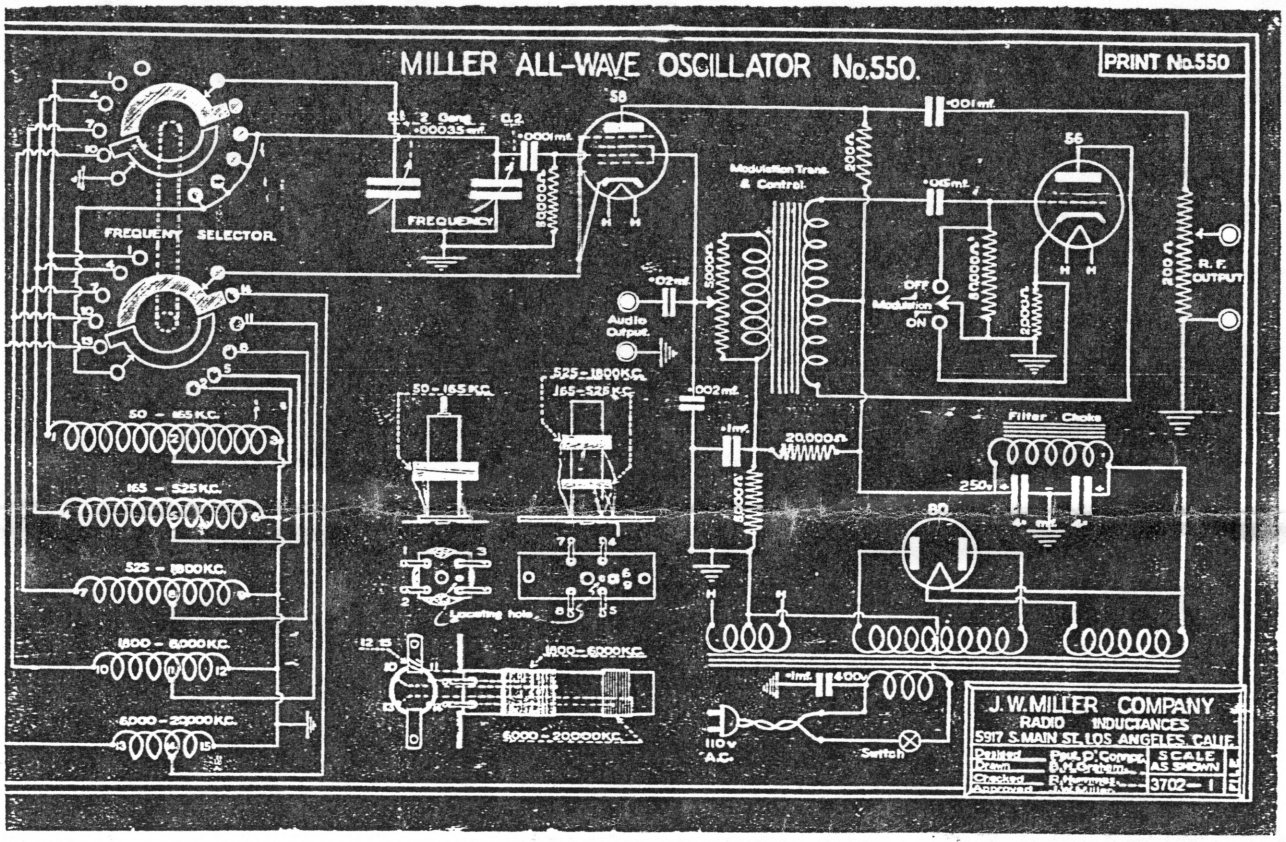
NOVEMBER
1990

VOLUME 5
NUMBER 11



HAPPY THANKSGIVING HOLIDAY ISSUE

HOBBY ELECTRONICS: OLD



. . . AND NEW!

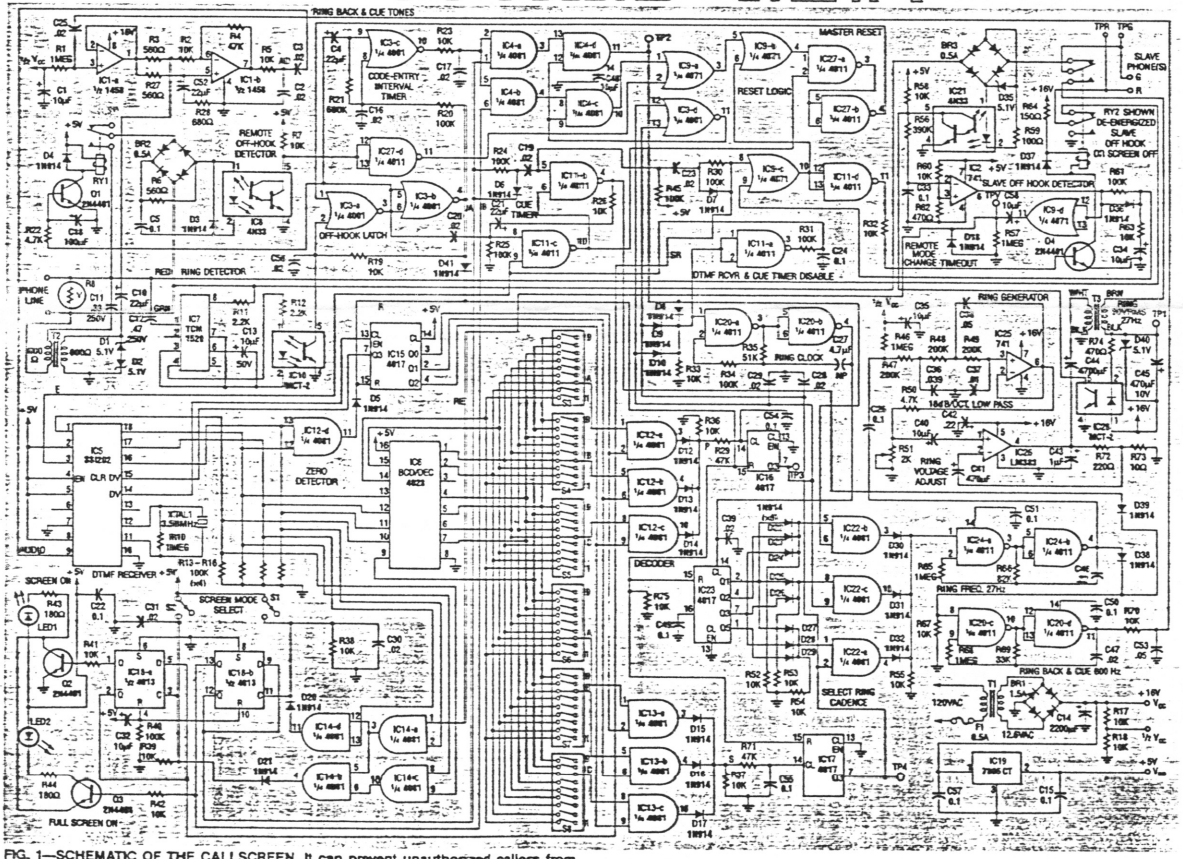


FIG. 1—SCHEMATIC OF THE CALLSCREEN. It can prevent unauthorized callers from wasting your time with "junk" calls.

THE NEWSLETTER FOR SEATUG

SWYM

NOVEMBER 1990

VOLUME 5 NUMBER 11

THIS MONTH:

RANDOM BITS.....Chuck Kereluck
MINUTES w/SEATUG..Malcolm Post
MIKE'S NOTEBOOK...Mike Di Rienzo
IQ BOOSTER.....Chuck Kereluck

NEXT MEETING:
NOVEMBER 1, 1990
THURSDAY 7:30 PM

8517 35th Ave. NE Seattle
University Federal Savings Bank

SEATUG General Info Address:
Derryck Turner
10909 NE 45th Street
Kirkland, WA 98033

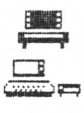
NEWSLETTER SUBMISSIONS:
Chuck Kereluck
9013 32nd Ave. NE
Seattle, WA 98115

NEWSLETTER EXCHANGE:
Robert Cazares
118 NW 84th Street
Seattle, WA 98117-3044

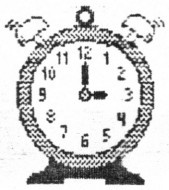
SEATUG supports ZX-80, ZX-81, T/S 1000, T/S 1500, T/S 2068, IQ-8300, Z88 & QL computers.

OFFICERS

PRESIDENT: Derryck Turner
VICE PRES: Gerry Desmarias
SECRETARY: Malcolm Post
LIBRARIAN: Dale Fritz
EDITORS : Chuck Kereluck
Robert Cazares



Files for SWYM may now be uploaded to the PHOTOSYNTHESIS BBS. TASWORD, MSCRIPT, Newsletter Z88 and QL files are supported. Also, Word Perfect 5.0, 5.1 and straight ASCII files are welcome. 24 hours 300/1200/2400 baud (206)782-7493



MINUTES WITH SEATUG

by Malcolm Post, Secretary

Oct. 4, 1990

The meeting was called to order by President Derryck Turner at 7:36 PM. There were ten members present. We welcomed a new member, Ken Goods from Fife.

Derryck received a second package from D. Squire containing more items pertaining to the Timex 1000. These included a manual, tapes, a rubber component from a keyboard, and miscellaneous documentation.

Derryck also brought us the latest copies of the SEATUG Library of Timex 2068 Programs.

Mike Stone reported that Sinclair QL computers are now available from Sharp in single unit orders at $99.50 and for even less in larger quantities. For example we could expect to get them for $10 apiece less if we order a quantity of five. Shipping is extra. This is an opportunity for those who do not have one to augment their computing capacity at a good price, if you want to stick with Sinclair.

The Treasurer's Report showed a balance of $246.00 as of September 30, 1990.

Pat told us how the price for SIMM memory boards have come down. This could provide us an opportunity for a hacker project to improve our systems with additional memory or to add a RAM disk. Some interest was shown but no definite commitments were made.

Discussions followed on the limitations of the Sinclair QL and add-on features and peripherals available for it.

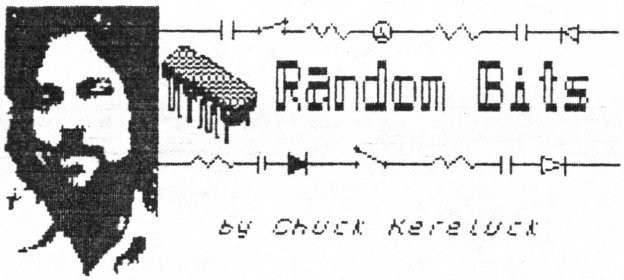
Derryck had received a letter from Wally Weber of Issaquah stating that his Timex 1000 had stopped operating and was inquiring if there was anyone in the club who might determine the problem and assist in its correction. Malcolm volunteered and has made a preliminary assessment of the problem. The Z80A chip was bad and the connector for the 1016 add-on memory was sensitive to vibration from using the keyboard. There has not been time to check if these are the extent of the difficulties. He will continue the investigation.

Mike Stone told us more about the Cambridge Z88, on which he had written an article for the October Newsletter. He likes the computer for his application of writing. Its miniscule power requirements and ample memory allows him to use it anywhere and down-loading the files into a desk-top takes care of a lack of disk for very long files. He and Robert had brought their Z88s and proceeded to demonstrate the use of the computer.

Robert also brought his new acquisition, a hackers pride, containing a ZX81 with a Hunter board, and a CRT monitor inverter card, and an EPROM programmer, all housed in salvaged terminal.

The last item of business was a reminder that next month is the annual election of officers for the following year. Please come with candidates who will continue the mission of the club.

The meeting was adjourned at 9:37.



PEEKING THRU THE WINDOW

I could hardly believe it. In fact, I wouldn't have, if I hadn't have been there myself.

I was sitting at a "PC" and was actually having a good time.

There I was, at my work in mainframe-land. It was lunch time on an off-shift, so I had time to kill. I found myself mysteriously drawn to a programmer's office cubicle, where an IBM-PC-AT-386 clone sat. I usually ignore these, as a matter of constitution, but there, on a generic application menu screen, was this choice: Windows 3.0. And this snakey little mouse was was just sitting there, suggestively.

I couldn't help myself. I just had to find out what the big deal was. Jumping right in, I barely touched the keyboard as I moved and clicked, moved and clicked. With nary a documentation page in sight, a comfortable degree of ease was soon developed. Here was an operating system that completely did away with weird commands, much weirder path names and that crazy backslash!

I saw a graphic-design application and immediately clicked to it. Having spent so much time with Tech Draw Jr., I sensed a surge of confidence with this choose-and-use menu format.

However, line drawing was a bit different, as was circle creation, color choices and most other things. But the format was similar! One highly-impressioned feature was the ability to "cut out" a piece of this picture that was just created and actually move it to any location on the screen!

Writing text to my fresh masterpiece brought mixed recollections that included Pixel Print. All the font choices that I was familiar with were there but the size and range was incredible: so small that even a VGA couldn't resolve and so large that the screen was too small!

Clicking to the Games section, I tried my hand at the Solitare card game. The graphics were wonderful and colorful. In fact, the only difference between this and using actual cards, is that you touch a mouse, instead and that any attempt at an illegal move is thwarted by the program jerking the card(s) back to their original position!

So what has all this have to do with Timex/Sinclair computers? One the selling points to the systems we all hold dear is their relative ease of understanding. You could also say they offer a sharp learning curve compared to conventional MS-DOS structuring. Suddenly, it seems the Big Guys have taken a page from the Little Guys. Suddenly, an MS-DOS machine running Windows 3.0 looks a helluva lot more attractive than on a similar machine without it or even (dare I say it?) a Sinclair machine!

However, for the rest of us True-blue, dyed-in-the-wool Sinclair addicts, there remains one feature that will still delay the migration to a "DOS machine" running Windows 3.0: Price.

QLs FOR CHEAP! QLs FOR CHEAP!

Ok, you closet QL yearners. Here's your chance to band together to get that shiny QL computer you've always dreamed of. SHARP'S INC., of Rt. 10, Box 459, Mechanicsville, VA 23111, is offering a deal to clubs or any other group that qualifies. What you have to do is buy in bulk. In other words, if you or your group can buy 5 QL computers, in one shot, SHARP will take a whole $10 off the normal $100 single-quantity price. If you can manage a 10-QL order, they'll drop $20 off the individual price. QLs for eighty bucks?? Holy Moly! This offer is good until they're all gone, so don't waste too much time thinking about it.

MORE DEALS

Trying to find a reliable mail-order parts supplier anymore can be a pain. The minimum order requirement usually far surpasses the one item you wanted

in the first place.

However, I notice that in the November Radio-Electronics Magazine, 32K X 8 static RAMS can be had for a mere $7.50, with no minimum order requirement! Use this on that 2068 dock RAM article we ran a while back. At this price, it sure beats that other monstorous one our club had to shell out for that ready-made, plug-in RAM card! Oh, by the way, the place is Microprocessors Unlimited, 24000 S. Peoria Ave., Beggs, OK 74421 or call them at (918)267-4961. They also have 1 MB X 9 dynamic hips for $65!

You just may want to give them a try.

HIGHER IQ

I can't seem to help it. Yours truly ended up buying the IQ-8300 computer at the SEATUG Auction, a couple of months ago. You should have been there (YOU know who you are!). A lot of classics going for cheap: A ZX-81, TS2040s, Jameco keyboard, manuals, even! Not so for the 8300. I'm told that Pat O'Reilly has one, however. He's got the other clone, the PC-8300. Don Lambert of CRAGIST is in contact with someone who is actually INTO the IQ-8300 computer! Has all sorts of info. You bet we'll be pursuing this!

In the meantime, we'll be publishing anything and everything we get our grubby little hands on. In fact, an interesting game program, created just for fun, is presented in this issue.

Enjoy.

THROW THE BUMS OUT!!

Is what they're saying about the upcoming Congressional elections, but hopefully, not about the SEATUG Officers Election. If you do happen to feel that way, please stop by at the November meeting and make it official! All attendees will be voting. Who wants to be Advertising Coordinator for SWYM? We need someone to get the word out and sell some ads and memberships. This is most efficiently handled by a specialized, dedicated job that would be a lot of fun for someone.

Anyway, whether you want to keep 'em or toss 'em, come on down and vote!

Make a difference!

ATTENTION BASIC PROGRAMMERS

Z E B U

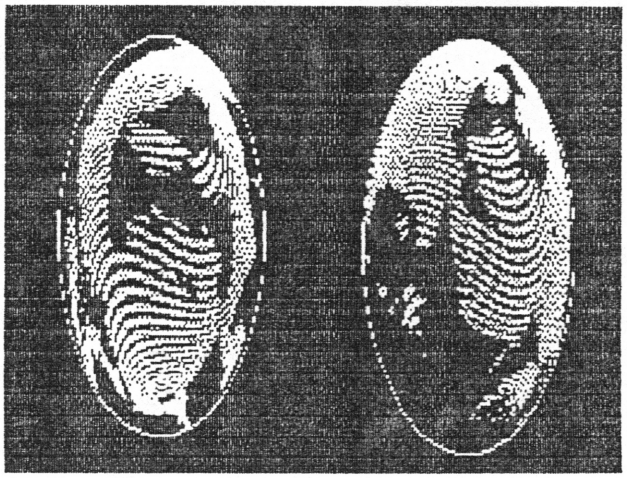
Zunks Extra Basic Utilities

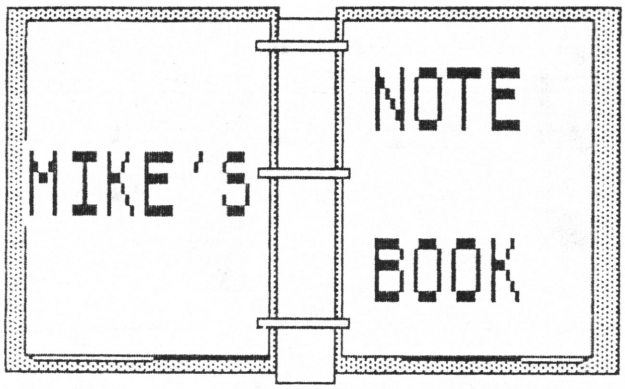
GIVES YOU 38 NEW COMMANDS AND FUNCTIONS FOR THE 2068

UP/DOWN ARROW KEYS IN EDIT LINE: TRUNCATE EDIT LINE LEFT OR RIGHT OF CURSOR:FAST DELETE KEY FIXES TIMEX BUG:DELETE A WHOLE STATEMENT BETWEEN COLONS WITH ONE KEY STROKE:PRINT 5 TEXT SIZES WITH MULTIPLE CHARACTOR MODIFIERS: 16 BIT POKE:16 BIT PEEK:TRUE 16 BIT AND/OR/XOR OPERATIONS:BLOCK MOVE/SWAP/COPY BYTES,WITH BANK SWITCHING AVAILABLE:LIST A LINE OR A RANGE OF LINES:MERGE BASIC LINES:SEARCH BASIC LINES:SET START OF BASIC TO ANY LINE OR RESET TO ORIGINAL FIRST LINE:GET CRITICAL PROGRAM PARAMETERS:HEX TO DECIMAL TO HEX CONVERSION: DECIMAL TO BINARY BIT PATTERN: READ ANY NUMBER OF CHARACTORS FROM SCREEN TO A STRING VARIABLE :ELECTRIC INK AUTO ROTATES INK COLORS AT SELECTED AREAS:MORE

ZEBU WILL RUN ON ANY 2068 SYSTEM IT CAN RESIDE IN ANY BANK
5368 BYTES $20.00

ZUNK CUSTOM ELECTRONICS
1419 FERRIS
UNKNOWN, TEXAS 75165





by Michael J. Di Rienzo

** ANY REPRINTING OR REPRODUCING THIS COLUMN WITHOUT THE EXPRESSED WRITTEM PERMISSION OF THE AUTHOR IS HEREBY PROHIBITED. FOR PERMISSION, WRITE THE AUTHOR IN CARE OF THIS PUBLICATION. **

Occasionally, I have a need to print text in 64 column format. Most print methods in common use resort to either setting-up the 64 column mode (using machine code + OUT 255,6), using the Taswide utility, or using the OS-64 cartridge. The following bit of machine code will allow you to print any text string using a clean, fast 64 column character set. What distinguishes this program from similar ones is that instead of requiring 768 bytes to define the characters (96 characters X 8 bytes per character), this program uses half the usual number of bytes to define the character set. Each eight byte character holds the bit pattern for two characters; one on the left and one on the right side of each eight byte character. Whenever a 64 column character is to be printed, the machine code determines if the character is on the left or right side of the byte, parses it and prints only bits 0 to 3 or bits 4 to 7.

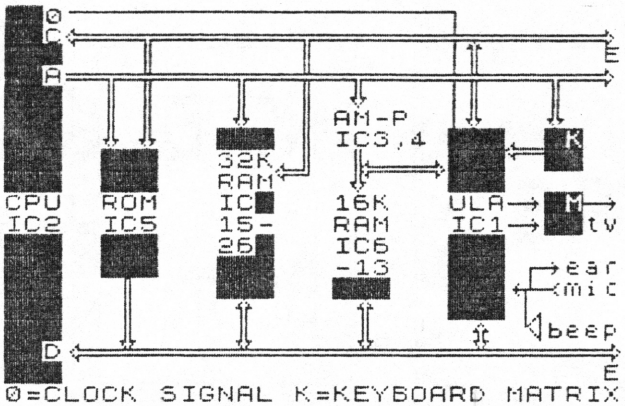
Study the demo given in lines 1 to 30. There are several rules to follow when using this utility in your programs. The first line of your program must DIMension S$ to the maximum number of characters that you plan to print at any one time, plus 3. See line 1. When you are ready to print 64 column text, write a BASIC line that lets S$="Your text". The first quote should be preceeded by CHR$ column # + CHR$ line # +. After the last quote you should add: + CHR$ 255 to tell the program to end 64 column printing. See lines 10 and 20 for an example. RANDOMIZE USR 65250 does the printing. The line and column numbers tell where you want the printing to start. The values for "line" are 0 to 23, and "column" values can be from 0 to 31. Text will wrap around to the left if the text extends beyond the 64th column. Define S$ as many times as you wish in your programs but remember that the DIM S$(?) should be 3 + the largest number of characters you want to print at any one time. This program is not relocatable as written. Be sure to run line 9800 first to poke in the code. The checksum will let you know if you made any typing errors. The code is 557 bytes long. have fun!

Happy TIMEXING...

"PARSE64" by Michael Di Rienzo

```
  1 DIM S$(67)
  5 FOR N=0 TO 23
 10 LET line=N: LET column=0
 20 LET S$=CHR$ column+CHR$ lin
e+"ABCDEFGHIJKLMNOPQRSTUVWXYZ-ab
cdefghijklmnopqrstuvwxyz-1234567
890"+CHR$ 255: RANDOMIZE USR 652
50
 30 NEXT N: PAUSE 0: STOP
9800 CLEAR 64862: LET t=0
9810 FOR n=64863 TO 65419
9820 READ a: POKE n,a: LET t=t+a
9830 NEXT n: IF t<>39831 THEN PR
INT "Data Error! Recheck DATA li
nes": STOP
9840 RUN
9850 DATA 0,0,0,0,2,2,2,2,0,2,0,
0,80,85,7,5,7,5,0,0,44,125,98,52
,123,35,0,0,98,162,64,176,160,20
8,0,0,34,65,65,65,65,34,0,0,0,82
,34,119,34,82,0,0,0
9860 DATA 0,0,7,0,32,64,0,1,1,2,
2,4,36,0,0,54,82,82,82,82,98,0,0
,39,81,18,33,65,118,0,0,71,84,86
,113,17,22,0,0,55,65,97,82,84,36
,0,0,50,85,37,83,81,102,0,0,0,0,
34,0,34,4,0,0,0,16,39,64,39,16,0
,0,2,69,33,18,32,66,0,0,98,213,2
13,183,133,117,0,0,99,84,100,84,
84,99,0,0,103,84,86,84,84
```

```
9870 DATA 103,0,0,115,68,100,69,
69,67,0,0,87,82,114,82,82,87,0,0
,21,21,22,21,21,101,0,0,69,71,71
,69,69,117,0,0,98,85,85,85,85,82
,0,0,98,85,85,101,71,67,0,0,99,8
4,82,97,81,86,0,0,117,37,37,37,3
7,35,0,0,85,85,85,87,87,37,0,0,8
5,85,37,34,82,82,0,0,118,20,36,3
6,68,118,0,0,67,65,33,33,17,19,0
,0,32
9880 DATA 112,32,32,32,32,15,0,4
8,70,97,39,69,119,0,0,64,99,84,8
4,84,99,0,0,16,50,85,87,84,51,0,
0,16,35,117,37,37,35,6,0,66,96,8
2,82,82,81,0,0,36,5,38,38,37,37,
64,0,32,37,39,39,37,21,0,0,0,98,
85,85,85,82,0,0,0,99,85,85,85,99
,65,0,0,51,68,66,65,70,0,0,32,11
7,37,37,37,19,0,0,0,85,85,87,87
9890 DATA 37,0,0,0,85,85,37,85,8
3,6,1,2,114,20,34,66,113,0,4,34,
34,33,34,34,36,0,6,89,175,13,15,
9,6,0,42,75,92,126,254,211,192,1
,6,0,9,237,91,95,253,213,58,97,2
53,245,203,255,50,97,253,94,35,8
6,35,122,230,7,15,15,15,131,95,1
22,230,248,246,64,87,229,225,126
,35,229,254,255,32,11,225,241,50
,97,253,209,237,83,95,253,201,20
5,38,255
9900 DATA 24,232,213,6,8,79,33,9
8,253,22,0,214,32,95,203,59,235,
41,41,41,25,209,213,203,65,32,5,
126,230,240,24,9,126,203,39,203,
39,203,39,203,39,245,58,97,253,2
03,71,32,6,26,230,15,18,24,14,24
1,203,63,203,63,203,63,203,63,24
5,26,230,240,18,241,235,182,119,
235,35,20,16,201,209,58,97,253,2
03,71,32,7,60,230,129,50,97,253,
201,28,237,83,95,253,230,128,50,
97,253,201
```



Ø=CLOCK SIGNAL K=KEYBOARD MATRIX
C=CONTROL BUS M=MODULATOR,VIDEO
A=ADDRESS BUS E=EXPANSION PORT
D=DATA BUS

SPECTRUM

BLOCK DIAGRAM

2068 **CADZ** V 2.2

DESIGN PRINTED CIRCUIT BOARDS

SCHEMATICS : DRAFTING

ADVERTISEMENTS

SUPPORTS

AERCO OR LARKEN DISK OR TAPE
OLIVETTI INKJET AND MOST DOT MATRIX PRINTERS, ANY INTERFACE
LARKEN RAMDISK, AERCO DOCK RAM OR ANY DOCK RAM EXPANSION

REQUIRES

32K TO 256K OF DOCK RAM AND ARTWORKS V1.1 BY NOVELSOFT

* PAN * MOVE * COPY * INVERT
* SWAP * MIRROR H/V * OVERLAY
* CUT & PASTE * POP DOWN MENUS
* SCIENTIFIC CALCULATOR
* DIP/SIP/FINGER/HOLE AUTO DRAW
* TRACE ROUTING * CREATE LAYERS
* 64 COLUMN PRINTING
* ANTIMATION * MUCH MORE

CADZ $20.00 (SEND SYSTEM SPECS)
OR
$1 FOR CATALOG PACK & INFO

ZUNK CUSTOM ELECTRONICS
1419 FERRIS
WAXAHACHIE, TEXAS 75165

IQ BOOSTER

by Chuck Kereluck

Oddly enough, right after we ran that Hardware Review in August, we realized, via mail, that there is actual interest and support for this little T/S clone.

With this realization fresh in mind, we set about developing some fun software for it. One of the simpliest is the Games category. Since the IQ seemed quite software compatible to the TS1000, a variety of programs were typed in from various published books.

However, this is precisely where Different ROM pokes his head out. So, some changes had to be made. Other changes that weren't necessary were, of course, with the graphics characters. Due to the inclusion of ghosts, bats, aliens, cars, etc., the IQ-8300 is a heavily games-oriented machine.

With this, also, in mind, we hereby present a multi-level games program to be played on the IQ. There's not much scoring, just perpetual action.

Changing levels is entirely software-controlled, due to timing loops inserted between each.

While writing this, I began to be visually familiar with the IQ's SAVE/LOAD patterns. I think I can draw a conclusion as to why many TS1000 programs won't LOAD and some do. The T/S LOADs/SAVEs the Display File LAST. That's the steady, slow pulsing of bars, at the end (collaspe the DF and notice that this step vanishes!). The IQ handles it FIRST.

So, anything from the TS that "carries" the DF in its program, just won't LOAD!

Have fun!

```
  1 FOR A=1 TO 100
 35 PRINT AT 11,15;"▄▄"
 40 FOR J=0 TO 28
 50 PRINT AT 5,J;" Ω"
 51 LET A=A+1
 52 IF A=100 THEN GOTO 300
 55 GOSUB 200
 60 NEXT J
 70 FOR J=28 TO 0 STEP -1
 80 PRINT AT 5,J;"▚ ▞ "
 85 GOSUB 200
 90 NEXT J
100 GOTO 40
200 IF INKEY$="" THEN RETURN
210 FOR K=10 TO 0 STEP -1
220 PRINT AT K,15;"▒"; AT K,15;
" "
230 NEXT K
240 RETURN
300 CLS
310 FOR A=1 TO 150
320 LET C=15
330 LET B=13
340 IF INKEY$="F" THEN LET C=C+
1
350 IF INKEY$<>"F" THEN LET C=C
-1
360 IF C<=B OR C>=B+6 THEN GOSU
B 500
370 PRINT AT 7,C;"▒"
380 PRINT TAB B;"▙      ▟"
390 IF RND<.2 OR B>22 THEN LET
B=B-1
400 IF RND>.8 OR B<2 THEN LET B
=B+1
410 SCROLL
412 LET A=A+1
415 IF A=150 THEN GOTO 600
420 GOTO 340
500 PRINT AT 7,0;">▒▒▒▒<"
510 RETURN
600 CLS
610 LET A=0
620 PRINT "ENTER A NUMBER FROM
2 TO 31 "
630 INPUT U
640 CLS
650 LET B$="▚    ▞    Ω    *
  ◘   ▒▒  "
660 LET Z=0
670 FOR J=1 TO 1000
680 FOR E=12 TO 18 STEP 2
690 PRINT AT 10,A;" ▄▼▄ "
700 LET Q=ABS (A)+2
710 IF INKEY$<>"U" THEN GOTO 75
0
720 LET J=J+10
730 PRINT AT E,Q;"▀"
740 IF B$(Q-1)="▚" OR B$(Q-1)="
▞" OR B$(Q-1)="Ω" OR B$(Q-1)="*"
 OR B$(Q-1)="◘" OR B$(Q-1)="▒" T
HEN LET Z=Z+3496
750 PRINT AT E,Q;" "
760 NEXT E
770 IF INKEY$="U" THEN LET B$(Q
-1)="▒"
780 PRINT AT 0,9;Z
790 PRINT AT 20,0;B$
800 LET B$=B$(U TO )+B$(1 TO U-
1)
810 LET A=A-(INKEY$="7")+(INKEY
$="F")
820 NEXT J
825 CLS
900 LET X=PI+PI
910 LET U=X/X
920 LET Y=X+PI
930 LET Z=Y/Y
940 PRINT AT Y,X;"*"
950 SCROLL
960 LET X=X-(INKEY$="7")+(INKEY
$="F")
970 LET U=U+Z
980 IF RND>.7 THEN GOTO 940
990 PRINT AT RND*15+5,RND*30;"▞
"
1000 PRINT AT RND*15+5,RND*30;"▞
"
1010 PRINT AT Y,X;
1020 IF PEEK (PEEK 16398+256*PEE
K 16399)<>12 THEN GOTO 940
1030 PRINT U
1040 PAUSE 240
1050 RUN
```

SEATUG'S COMING ATTRACTIONS

THROW THE

BUMS OUT!

Or keep 'em in. Who do you want to hold the revered office of President? Vice? Program Coordinator? Secretary? Librarian? Or even (gasp!) News letter Editors??

The most important meet of the year is at 7:30 PM, November 1st.

Exert your right to control!

Come on down and VOTE!

SWYM ADS

WANTED =

One uA78S40 chip for TS2068 fix. This is hard-to-find item that is a regulator/op-amp. Help fix a classic!
WRITE: Chuck Kereluck
9013 32nd Ave NE
Seattle, WA 98115
PHONE: (206)523-5272

SWYM

SWYM is the official newsletter of the Seattle Area Timex Users Group. It is published monthly, with mailings due before the 1st Thursday of the month.

SUBSCRIPTIONS for non-Seattle area users are only $10/yr, to SWYM, c/o Dave Battershill, Treasurer, P.O. Box 64462 Tacoma, WA 98464. Free exchanges are made between other related clubs via the newsletter exchange program.

ADVERTISING is accepted and encouraged! Full-page, half and quarter-page ad space is available. Contact Robert Cazares or Chuck Kereluck for rates.

ARTICLE CONTRIBUTIONS are welcomed and encouraged. A textfile from MSCRIPT, TASWORD or a Pixel Print column is preferable. If used, make a tape copy and mail to Chuck Kereluck. For repeat contributers, mailed tapes will be returned. For modem users, articles (in either 2068 or ASCII format) may be uploaded to PHOTOSYNTHESIS (206)782-7492. 24-hour access. 8, 1, N.

Typed, 8-1/2" X 11" text is acceptable. If diagrams are included, use a large mailer to accommodate the unfolded size. Articles supplied on ZEBRA FDD or IBM PC 5-1/4" or 3-1/2" disks are also acceptible. These will be returned to the author.

REPRINTS. Articles in SWYM may be reprinted for use in other newsletters, providing proper credit is given to the author and publication.